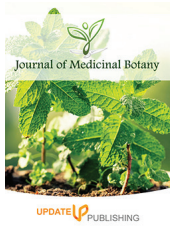
Journal of Medicinal Botany 2020, 4: 24-37
doi: 10.25081/jmb.2020.v4.6389
http://updatepublishing.com/journal/index.php/jmb

Research Article



ISSN: 2521-3903

Ethnomedicinal uses of plants by major ethnic groups of Hilly Districts in Nepal: A review

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ABSTRACT

Plants are used as ethno-medicine by indigenous people living all around the world. In Nepal, plants are being used for healing diseases since a long period by various ethnic groups of rural areas due to difficulty in the availability of modern medicines. Many researchers have contributed to documentation of ethnomedicinal knowledge on plants in Nepal; however few studies have been carried out on hilly districts. Our study aims to review and compile all the published research documents on ethnomedicinal uses of plants by various ethnic groups of hilly districts in Nepal. Altogether 35 published documents till August 2020, accessed through Google Scholar and Research Gate were selected for our study. A total of 215 plant species from 93 families was found to be used for the treatment of 139 types of diseases by 10 ethnic groups of 13 hilly districts. Also, leaves were used for the treatment of maximum numbers of diseases (69). Plants from Fabaceae, Asteraceae, and Poaceae, etc. were used to treat major diseases like; diabetes, asthma, stomachache, fever, jaundice, etc. Traditional knowledge on medicinal uses of plants is needed to be explored and documented to preserve traditional medicinal knowledge as well as medicinal plants.

KEYWORDS: Disease, ethnomedicine, ethnic group, Indigenous people, medicinal plant

Received : August 05, 2020
Accepted : October 16, 2020
Published : October 19, 2020

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INTRODUCTION

Ethno-botany is defined as the science of interaction between people and plants [1] and deals with the study and documentation of indigenous knowledge of people on plants i.e. how plant resources are used by ethnic groups (people having their own common cultures, languages, and belief systems) [2]. Ethno-medicine deals with the study of traditional medical practices by different ethnic groups [3]. More than 20,000 species of higher plants are used for the traditional medicinal practices by indigenous people (native people) living around the world [4]. Indigenous people of developed and developing countries are using plants as a source of medicine [5,6,7].

There are 1950 species of medicinal plants being used in Nepal [8], out of which 143 species are listed as commercial medicinal plants [9]. In Nepal, the lower sub-tropical region (1000-1500 m) harbors a maximum number (679 species) of medicinal plants [10]. Traditional herbal medicines have been practiced by rural people in Nepal since a long time ago because they are easily available, having no side-effects and are cheaper than modern medicines [11,12]. The ethnic groups have the best knowledge on the uses of plants and also transferring it to their next-generation [11]. The methods of using plants to cure several diseases vary among ethnic groups and also among healers [13]. The ethnomedicinal knowledge is being recognized worldwide because it support on innovation and formulation of many modern medicines [11,14]. The discovery of new drugs can be obtained through the bio-visioning of indigenous medicinal plants [15]. It is important to document and explore indigenous knowledge on medicinal plants of different ethnic groups because the knowledge might get lost with the loss of knowledgeable persons, biodiversity loss, and socio-economic changes [16,17].

Many researchers have contributed on ethnomedicinal study of plants in Nepal. However, no review study has been done till now on ethnomedicinal uses of plant species by various ethnic groups of hilly districts in Nepal. Therefore, this study has attempted to review and compile all research articles on ethnomedicinal uses of plants by different ethnic groups of hilly districts in Nepal.

MATERIALS AND METHODS

The entire information was obtained from a review of several published sources including research notes and reports, academic papers, journals, and theses from 1988-2020. Google Scholar and Research gate were the primary databases for obtaining the whole data on ethnomedicinal uses of several

tree species by ethnic groups of hilly districts in Nepal, with the keywords "Medicinal plants", "Ethnomedicinal uses", "Ethnic groups of Nepal" etc. Finally, 35 pieces of literature published until August 2020 was selected for our study.

RESULTS

There are 126 ethnic groups in Nepal, out of which 59 are officially recognized as indigenous ethnic groups [18]. Brahmin, Chhetri, Gurung, Magar, Tamang, Thami, Newar, Rai, Limbu, etc. are major indigenous ethnic groups residing on the hilly region of Nepal [18]. Documents focusing on single ethnic groups are described in our results and discussion. Ethnomedicinal uses of plants by 10 ethnic groups of 13 hilly districts are described in this paper.

The ethnic groups, their inhabited districts from where researches were carried out, numbers of plants used as a medicine, and numbers of diseases or ailments treated are mentioned in (Table 1). Plants with their scientific name, Nepali name, family, parts used, diseases treated, and used by respective ethnic groups are given in (Table 2).

DISCUSSION

Altogether 215 species of plants were found to be used for the treatment of 139 types of diseases. Whole plant or its parts i.e. rhizome, stem, bark, twig, leaf, root, fruit, bulb, seed, latex, tuber, flower, and buds of plants were used for the treatment of single or multiple diseases. The plants' parts used and numbers of diseases treated are mentioned in (Figure 1). According to our

Table 1: Ethnic groups, their inhabited districts, and numbers of (medicinal plants/diseases treated)

S.N.	Ethnic groups	Districts (studied)	Abbreviation of districts (used on Table 2)	Numbers of plants	Numbers of diseases	Sources
1.	Gurung	Kaski		42	43	[19]
2.	Magar	Parbat	P	75	39	[20]
		Rolpa	Ro	82	30	[2]
		Palpa	Pa	171	104	[21]
		Gulmi	G	161	123	[14]
		Tanahu	Ta	54	23	[22]
		Baglung	Ba	86	72	[23]
3.	Newar	Kathmandu		119	35	[24]
4.	Raji	Surkhet		91	60	[25]
5.	Tamang	Kathmandu	K	19	15	[26]
		Nuwakot	N	44	32	[27]
6.	Thami	Illam		30	55	[28]
7.	Yakkha	Dhankuta		30	47	[29]
8.	Lepcha	Ilam		90	63	[30]
9.	Rai	Bhojpur		87	65	[31]
10.	Tangbetons	Kaski		60	64	[32]

(Abbreviation for districts is used for researches carried out from more than one district.)

Table 2: Name of plants with their medicinal uses by ethnic groups of hilly districts in Nepal

S.N.	Scientific name, Nepali name and Family	P.U.	Diseases treated	Ethnic groups	Sources
1.	*Acacia catechu* (L.f.) Willd., Khayar, Fabaceae	S	Body pain and stomachache	Magar (Ta)	[22]
			Body pain	Lepcha	[30]
		B, S	Stomachache	Raji	[25]
2.	*Acacia nilotica* (L.) Delile, Babul, Fabaceae	S, T	Toothache	Magar (Pa)	[33]
		L	Urinary tract irritation		
3.	*Achyranthes aspera* L., Datiwan, Amaranthaceae	L	Stomachache	Newar	[24]
		R	Fever, body pain, rheumatism, and pneumonia	Lepcha	[30]
			Pneumonia and menstrual disorder	Rai	[31]
4.	*Aconitum forex* Wall. ex Ser., Bikha, Ranunculaceae	Tu	Diabetes, food poison, and stomach problem	Lepcha	[30]
5.	*Acorus calamus* L., Bojho, Acoraceae	Rh	Cough and tonsillitis	Raji	[25]
			Cough, cold, and shore throat	Magar (Pa)	[33]
			Scabies, sore throat, and appetizer	Yakkha	[29]
			Cough	Magar (Ta)	[22]
			Cholera, diarrhoea, gastritis, cough, scabies, and toothache	Lepcha	[30,34]
			Cough, sore throat, and scabies	Magar (Ro)	[2]
			Cough and bronchitis	Tamang (N)	[27]
			Fever, bronchitis, stomach problems, and throat problems	Magar (Ba)	[23]
6.	*Adhatoda vasica* Nees, Asuro, Acanthaceae	L	Fever	Newar	[24]

(*Contd...*)

Table 2: ***(Continued)***

S.N.	Scientific name, Nepali name and Family	P.U.	Diseases treated	Ethnic groups	Sources
7.	*Aegle marmelos* (L.) Correa, Bel, Rutaceae	F	Diarrhoea, dysentery, heat sickness, constipation, and dyspepsia	Magar (G)	[14]
			Diarrhoea and dysentery	Tamang (N)	[27]
			Diarrhoea	Magar (Ba)	[23]
		B	Stomachache	Magar (Ta)	[22]
		R	Fever and vomiting	Magar (Ba)	[23]
8.	*Ageratum conyzoides* L., Seto gandhe, Asteraceae	L	Cuts and wounds	Magar (Pa)	[33]
				Magar (Ta)	[22]
				Lepcha	[30]
				Tamang (N)	[27]
		W	Cuts and wounds	Magar (Ba)	[23]
9.	Allium cepa L., Pyaj, Amaryllidaceae	Bu	Eye boils and sun stroke	Magar (Pa)	[33]
			Eye boils	Magar (P)	[20]
10.	*Allium sativum* L., Lasun, Amaryllidaceae	Bu	High blood pressure and altitude sickness	Gurung	[19]
			Boils and gastritis	Magar (Pa)	[33]
				Magar (P)	[20]
			Flatulence and skin rashes	Tamang (N)	[27]
			Cancer, gastritis, and sleep disorder	Tangbeton	[32]
11.	*Allium wallichii* Kunth, Ban lasun, Amaryllidaceae	W	Sinusitis	Tangbeton	[32]
12.	*Aloe vera* (L.) Burm. F., Ghiu kumari, Liliaceae	L	Burned skin, gastritis, and abdominal distention	Raji	[25]
			Gastritis and burn	Lepcha	[30]
			Burns and internal inflammation	Magar (Ba)	[23]
			Burns	Tamang (N)	[27]
13.	*Alstonia scholaris* (L.) R. Br., Chattiwan, Apocynaceae	B	Fever, diarrhea, dysentery, and skin diseases	Magar (Pa)	[33]
			Scabies, skin diseases, and tonic	Lepcha	[30]
		S	Sprain	Magar (Ta)	[22]
14.	*Alternanthera sessilis* (L.) R. Br. ex. DC, Bhiringi jhar, Amaranthaceae	L	Wounds	Magar (G)	[14]
		R	Bloody dysentery	Yakkha	[29]
15.	*Amaranthus viridis* L., Latte sag, Amaranthaceae	R	Leucorrhoea, pneumonia, and colic pain	Magar (Ba)	[23]
16.	*Amaranthus spinosus* L., Kande lundo, Amaranthaceae	R	Overheat	Magar (P)	[20]
17.	*Amorphophallus campanulatus* (Roxb.) Blume ex Decne, Kaan, Araceae	Bu	Hydrocele, dysentery, asthma, and piles	Magar (Pa)	[21]
18.	*Amomum subulatum* (Roxb.) Kuntze, Alaichi, Zingiberaceae	Sd	Cold	Magar (P)	[20]
			Indigestion and vomiting	Lepcha	[34]
			Cough	Tangbeton	[32]
19.	*Ananas comosus* (L.) Merr., Bhui Katahar, Bromieliaceae	L	Constipation	Magar (Pa)	[21]
		F	Skin diseases		
			Internal inflammation and urinary complaints	Magar (Ba)	[23]
20.	*Anaphalis contorta* (D. Don) Hook. F., Buki phul, Asteraceae	R	Diarrhoa	Newar	[24]
21.	*Annona squamosa* L,, Sitaphal, Annonaceae	F	Tonic	Magar (Pa)	[21]
22.	*Artemisia indica* Willd., Titepati, Asteraceae	L	Indigestion	Newar	[24]
			Cuts, wounds, and scabies	Magar (Pa)	[33]
				Magar (P)	[20]
				Lepcha	[34]
			Cuts, wounds, and boils	Magar (Ta)	[22]
23.	*Artocarpus lakoocha* Roxb., Badahar, Moraceae	B	Stomachache	Magar (Ta)	[22]
		Lt	Mumps	Rai	[31]
24.	*Andrographis paniculata* (Burm. f.) Wall. ex. Nees, Kaalmegh, Acanthaceae	W	Diabetes	Magar (Pa)	[21]
25.	*Asclepias curassavica* L., Khursani koshe phul, Apocynaceae	W	Antiseptic	Newar	[24]
26.	*Asparagus racemosus* Willd., Kurilo, Asparagaceae	Tu	Diabetes	Newar	[24]
			Stomach problem and fracture	Raji	[35]
			Increase lactation and urinary problems	Magar (Pa)	[33]
			Agalactia and gastritis	Magar (P)	[20]
			Laxative	Magar (Ta)	[22]
			Increase lactation, tonic, and fever	Magar (Ba)	[23]
			Headache, paralysis, anorexia, and lactation	Rai	[31]
		S	Burnt area, spots on skin, and high blood pressure	Tangbeton	[32]

(*Contd...*)

Table 2: ***(Continued)***

S.N.	Scientific name, Nepali name and Family	P.U.	Diseases treated	Ethnic groups	Sources
27.	*Astilbe rivularis* Buch.-Ham. ex. D.Don, Budho Okhati, Saxifragaceae	Rh	Aphrodisiac and meternity problems	Newar	[24]
			Back pain, body pain, and sprain	Lepcha	[30,34]
			Fracture and body pain	Thami	[28]
28.	*Azadirachta indica* A. Juss., Neem, Meliaceae	L	Toothache, malarian fever, and diarrhea	Magar (Ta)	[22]
			Fever and intestinal worms	Tamang (N)	[27]
			Fever	Lepcha	[34]
29.	*Basella alba* L., Poi Saag, Basellaceae	L	Constipation	Magar (Pa)	[21]
30.	*Bauhinia purpurea* L., Tanki, Fabaceae	Fl	Diarrhoea & dysentery	Newar	[24]
31.	*Bauhinia variegata* (L.) Benth. Koiralo, Fabaceae	B	Diarrhoea & dysentery	Newar	[24]
				Raji	[25]
			Dirrahoea, dysentery, piles, and liver disorders	Magar (Pa)	[33]
		Fl	Dysentery and mouth sores	Yakkha	[29]
32.	*Begonia nepalensis* (A. DC.) Warb., Makar kanchi, Begoniaceae	R	Antihelmintic	Newar	[24]
33.	*Berberis aristata* DC., Chutro, Berberidaceae	B	Diarrhoea	Raji	[25]
			Fever and eye infection	Magar (Pa)	[33]
		R	Pinworm	Raji	[25]
			Intestinal worms	Gurung	[19]
			Wounds and inflammation	Magar (Pa)	[33]
			Jaundice and diarrhea	Magar (Ro)	[2]
		S	Jaundice, fever, and skin disease	Tamang (N)	[27]
34.	*Bergenia ciliata* (Haw.) Sternb., Pakhanbed, Saxifragaceae	Rh	Aphrodisiac, fever, maternity problem, and post pregnancy	Newar	[24]
			Diarrhea and fever	Magar (Ba)	[23]
			Typhoid, dysentery, diarrhoea, vomiting, stomach ache, headache, and menstrual disorder	Magar (Ro)	[2]
			Cuts, wound, and stomach problems	Lepcha	[30]
			Diarrhea	Tamang (K)	[26]
		L	Dog bite	Lepcha	[34]
		W	Renal calculi, fracture, and menstrual haemorrhage	Raji	[25]
			Whooping cough, body pain, and sprain	Rai	[31]
		S, R	Body pain	Magar (P)	[20]
35.	*Betula alnoides* Buch.-Ham. ex. D.Don, Saur, Betulaceae	B	Bone fracture, sprain, and bleeding	Magar (G)	[14]
			Pyorrhea, tooth ache, and rabies	Lepcha	[30]
36.	*Blumea lacera* (Burm. f.) DC., Kukure, Asteraceae	L	Headache	Magar (Pa)	[21]
37.	*Boeravia diffusa* L., Punnare Jhar, Nyctaginaceae	L	Gonorrhea and bleeding	Magar (Pa)	[33]
38.	*Bombax ceiba* L., Simal, Malvaceae	B	Constipation	Raji	[25]
			Dysentery and gastritis	Gurung	[19]
			Aphrodisiac, diarrhea, and dysentery	Tamang (N)	[27]
			Internal inflammation	Magar (Ba)	[23]
		R	Cuts and wounds	Gurung	[19]
39.	Brachycorythis obcordata (Lindl. ex. Wall.) Summerh., Gamdol, Orchidaceae	Rh	Aphrodiasic and tonic	Newar	[24]
40.	*Brassica campestris* L., Tori, Brassicaceae	Sd	Back and body pain	Lepcha	[34]
			Cough	Rai	[31]
41.	*Bryophyllum pinnatum* (Lam.) Oken, Ajambari, Crassulaceae	L	Inflammation and cholera	Magar (Pa)	[21]
42.	*Calotropis gigantea* (L.) W.T. Aiton, Aank, Apocynaceae	F	Body pain and sinusitis	Magar (G)	[14]
		L	Boils and sprain		
			Sprain	Lepcha	[30]
		B	Bloody stool	Raji	[25]
		Lt	Sprain		
43.	*Caltha palustris* L., Sim Gaitihare, Ranunculaceae	L	Fever	Newar	[24]
44.	*Cannabis sativa* L., Gaanja, Cannabaceae	L	Diarrhoea and stomachache	Gurung	[19]
			Pain killer and stomachache	Tamang (N)	[27]
			Stomach problems	Magar (Ta)	[22]
		Sd	Abdominal disorders	Newar	[24]
			Blood purifier	Tangbeton	[32]
			Cold	Gurung	[19]
		W	Abdominal pain, cuts, and wounds		
45.	*Capsicum annuum* L., Dalle Khursani, Solanaceae	F	Gastritis	Lepcha	[34]
				Rai	[31]

(*Contd...*)

Table 2: ***(Continued)***

S.N.	Scientific name, Nepali name and Family	P.U.	Diseases treated	Ethnic groups	Sources
46.	*Carica papaya* L., Mewa, Caricaceae	R	Renal calculus	Raji	[25]
		F	Jaundice		
47.	*Cassia fistula L.,* Raj brikshaya, Fabaceae	F	Constipation	Raji	[25]
		Sd	Rheumatism, snake bite, and stopped urine	Magar (Ba)	[23]
48.	*Cassia occidentalis* (L.) Link, Thulo Tapre, Fabaceae	L	Headache and skin diseases	Magar (Pa)	[33]
		R	Intestinal worms		[21]
49.	*Cassia tora L.,* Sano Tapre, Fabaceae	Sd	Insomnia	Magar (Pa)	[21]
50.	*Centella asiatica* (L.) Urb., Ghodtapre, Apiaceae	W	Antidote to poison, cut, wounds, and urinary trouble	Newar	[24]
			Fever, jaundice, and stomach problem	Raji	[25, 35]
			Cuts, wound, snake bite, skin diseases, and severe headache	Gurung	[19]
			Skin disease	Magar (Pa)	[33]
			Fever, urinary tract infection, and body cooling	Magar (Ta)	[22]
			Fever, cough, cold, sinusitis, and pneumonia	Lepcha	[30]
			Fever, jaundice, and heat sickness	Magar (Ba)	[23]
		L	Fever and body cooling	Magar (Pa)	[33]
		S	Skin disease, indigestion, and diuretic	Tamang (N)	[27]
51.	*Cheilanthes dalhousiae* (Hook.), Ranisinka, Cheilanthoidae	W	Fever, dysentery, and cuts	Gurung	[19]
			Stomachache	Magar (Ta)	[22]
		L	Snake bite	Rai	[31]
		S	Antiseptic	Raji	[25]
52.	*Chenopodium album* L., Bethe, Chenopodiaceae	Sd	Abdominal pain	Gurung	[19]
			Retention of placenta	Raji	[25]
		R	Labour pain		
		W	Constipation	Lepcha	[34]
53.	*Cinnamomum tamala* (Buch.-Ham) T. Nees & Eberm., Dalchini, Lauraceae	L	Colic pain and diarrhea	Magar (Pa)	[33]
			Digestive disorder and kidney disease	Tangbeton	[32]
		Sd	Stomachache and skin diseases	Magar (Pa)	[33]
54.	*Cirsium verutum* (D.Don) Spreng., Thakal, Asteraceae	R	Urinary trouble	Newar	[24]
			Fever and marasmus	Magar (Ro)	[2]
55.	*Cissus quadrangularis* L., Had jor, Vitaceae	W	Cuts, wounds, and fracture	Lepcha	[30]
56.	*Citrus limon* (L.) Osbek, Kagati, Rutaceae	F	Altitude sickness, vomiting, and dandruff	Raji	[25]
			Altitude sickness	Rai	[31]
57.	*Cissampelos pareira* L., Batul pate, Menispermaceae	Tu	Abdominal disorders	Raji	[35]
				Magar (Ba)	[23]
				Magar (Ta)	[22]
		W	Hemorrhage	Newar	[24]
		R, L	Gastritis, Menstrual disorder, and abdominal distention	Raji	[25]
58.	*Cleistocalyx operculatus* (Roxb.) Merr. & L.M., Kyamuno, Myrtaceae	L	Nose bleeding and sinusitis	Rai	[31]
				Raji	[25]
		B	Diarrhoea, dysentery, and cholera	Lepcha	[30]
59.	*Clematis buchannaniana* DC., Pinashe lahara, Ranunculaceae	L	Cough and cold	Newar	[24]
		R	Sinusitis	Lepcha	[34]
			Toothache	Rai	[31]
60.	*Cleome viscosa* L., Ban Methi, Capparaceae	L	Headache and earache	Magar (Pa)	[21]
		Sd	Wounds		
61.	*Clerodendrum indicum* (L.) Gaertn., Rudilo, Verbenaceae	L	Cough, cold, fever, and headache	Magar (Ta)	[22]
62.	*Clerodendrum viscosum* Vent., Bhat, Lamiaceae	R	Blood dysentery	Magar (Pa)	[33]
		L	Wormicide		
63.	*Coccinia grandis* (L.) Voigt., kundaru, Cucurbitaceae	R	Labour pain	Rai	[31]
		L	Liver disorders	Magar (Pa)	[33]
		F	Toothache		
64.	*Colebrookea oppositifolia* Sm., Dhursuli, Lamiaceae	R	Conjunctivities, typhoid,and wounds	Gurung	[19]
			Epilepsy	Magar (Ba)	[23]
		L	Sinusitis	Raji	[25]
			Opaqueness in cornea	Lepcha	[30]
			Nose bleeding	Rai	[31]
			Sinuse and wounds	Magar (Ba)	[23]
65.	*Colocasia esculenta* (L.) Schott, Karkalo, Araceae	L	Wounds	Raji	[25]
66.	*Coriandrum sativum* L. Dhaniya, Apiaceae	Sd	Cold and cough	Tangbeton	[32]

(*Contd...*)

Table 2: ***(Continued)***

S.N.	Scientific name, Nepali name and Family	P.U.	Diseases treated	Ethnic groups	Sources
67.	*Coriaria nepalensis* Wall., Machhaino, Coriariaceae	L	Antiseptic	Newar	[24]
68.	*Costus speciosus* (Koeing) Sm., Betlauri, Costaceae	R	Cough, fever, pain, and tonic	Magar (Ba)	[23]
		S	Burning urination and stone	Rai	[31]
69.	*Crinum asiaticum* L., Hade phool, Amaryllidaceae	Tu	Cholera	Rai	[31]
70.	*Cucumis sativus* L., Kankro, Cucurbitaceae	Sd	Malaria and pneumonia	Lepcha	[30]
		F	Cold		[34]
71.	*Cucurbita maxima* Duchesne, Pharsi, Cucurbitaceae	F	Dysentery	Rai	[31]
72.	*Curcuma angustifolia* Roxb., Besar, Zingiberaceae	R	Fractured and dislocated bones	Magar (Ro)	[2]
73.	*Curcuma longa* L. Besar, Zingiberaceae	Rh	Wounds and cough	Raji	[25]
			Backache	Magar (Pa)	[33]
			Cold, cough, and cholera	Lepcha	[30]
			Cough	Rai	[31]
			Vomiting and indigestion	Tangbeton	[32]
74.	*Cuscuta reflexa* Roxb., Aakash beli, Convolvulaceae	W	Dandruff, jaundice, and removal of placenta	Raji	[35]
			Jaundice	Magar (Ta)	[22]
				Tamang (K)	[26]
				Rai	[31]
				Tamang (N)	[27]
				Magar (P)	[20]
			Jaundice and fever	Magar (Ba)	[23]
			Wound, jaundice, fracture, and stomach problems	Lepcha	[30]
			Liver disorders	Magar (Pa)	[33]
75.	*Cynoglossum zeylanicum* (Vahl) Thunb. ex. Lehm., Kanike kuro, Boraginaceae	W	Cuts and wounds	Newar	[24]
		L		Gurung	[19]
76.	*Cyathula tomentosa* (Roth) Moq., Aulo kuro, Amaranthaceae	R	Fever	Newar	[24]
77.	*Cynodon dactylon* (L.) Pers., Dubo, Poaceae	W	Haemorrhage	Newar	[24]
			Inflammation of limbs, urinary tracts, gastric disorders, and haemorrhage	Gurung	[19]
78.	*Cyperus rotundus* L., Mothe, Cyperaceae	R	Fever	Newar	[24]
79.	*Dactylorhiza hatagirea* (D.Don) Soo, Panchaunle, Orchidaceaae	Rh	Headache, stomachache, and typhoid	Magar (Ro)	[2]
		R	Piles	Tangbeton	[32]
80.	*Daphne papyracea* Wall. ex. G.Don, Lokta, Thymelaeaceae	R	Fever and antidode to poison	Newar	[24]
81.	*Datura stramonium* L., Dhaturo, Solanaceae	L, Sd	Toothache, asthma, bronchitis, and insomnia	Magar (G)	[14]
82.	*Delphinium cooperi* (Hook.f.) Jesssop, Nirmasi, Ranunculaceae	Rh	Fever	Newar	[24]
83.	*Dendrocalamus hamiltonii* Gambie, Choya Bans, Poeceae	Bd	Pneumonia	Lepcha	[34]
84.	*Dichroa febrifuga* Lour, Bhasak, Hydrageaceae	R	Fever and antidode to poison	Newar	[24]
85.	*Dioscorea bulbifera* L., Githa, Dioscoreaceae	Tu	Sore throat	Newar	[24]
			Heat sickness	Raji	[25]
			Intestinal worms	Magar (Ba)	[23]
		Sd	Piles, ulcer, and dysentery	Tamang (N)	[27]
86.	*Dioscorea deltoidea* Wall. ex Griseb., Bhyakur, Dioscoreaceae	Tu	Antihelmintic	Newar	[24]
87.	*Drymaria cordata* (L.) Willd. ex Schult., Abhijalo, Caryophyllaceae	W	Cuts, wounds, and eye problem	Newar	[24]
			Cold	Yakkha	[29]
			Pneumonia, throat pain, sinusitis, and rashes in mouth	Thami	[28]
		L	Sore throat, cough, cold, sinusitis, fever, pneumonia, cut, wounds, and diarrhea	Lepcha	[30,34]
			Wounds and itches	Magar (Ro)	[2]
88.	*Drymeria cordta subsp. Diandra* (Sw.) J.A. Duke., Abhijalo, Caryophyllaceae	W	Sinusitis and abdominal distention	Raji	[25]
			Cold, cough, and stomach pain	Gurung	[19]
			Sinuses and stomach disorder	Magar (Ba)	[23]
			Sinusitis and headache	Rai	[31]
		L	Fever	Magar (Ta)	[22]

(*Contd...*)

Table 2: ***(Continued)***

S.N.	Scientific name, Nepali name and Family	P.U.	Diseases treated	Ethnic groups	Sources
89.	*Dryoathyrium boryanum* (Willd.) Ching, Kali neuro, Pteridaceae	Bd	Headache, fever, and stomach disorders	Magar (Ba)	[23]
90.	*Eclipta prostrata* (L.) L., Jire jhaar, Asteraceae	W	Antihelmintic	Newar	[24]
91.	*Elephantopus scaber* L., Sahasrabuti, Asteraceae	R	Body cooling	Magar (Ta)	[22]
		Fl	Heart disease	Rai	[31]
92.	*Elsholtzia flava* Benth., Ban Silam, Lamiaceae	L	Insect bite	Newar	[24]
93.	*Ensete glaucum* (Roxb.) Cheesman, Ban kera, Musaceae	R	Urinary tract infection	Magar (Ta)	[22]
94.	*Equisetum debile* Roxb. ex Vaucher, Sime Jhar, Equisetaceae	W	Heat balance in body	Magar (G)	[14]
			Liver disorders and constipation	Magar (Pa)	[33]
		R	Dislocation of bones		
95.	*Erythrina stricta* Roxb., Phaledo, Fabaceae	B	Body cooling	Magar (Ta)	[22]
96.	*Eupatorium adenophorum* Spreng., Banmara, Asteraceae	L	Cuts and wounds	Newar	[24]
				Magar (P)	[20]
				Magar (Ta)	[22]
97.	*Euphorbia heterophylla* L., Wild Poinsettia Euphorbiaceae	S	Cuts and wounds	Newar	[24]
98.	*Euphorbia hirta* L., Dudhe jhaar, Euphorbiaceae	Lt	Antiseptic	Newar	[24]
			Cuts and skin burn	Magar (Pa)	[33]
		L	Cuts	Magar (Ta)	[22]
		R	Cuts and wounds	Magar (P)	[20]
99.	*Euphorbia royleana* Boiss., Siudi, Euphorbiaceae	W	Earache, boils, sprain, and muscular swellings	Gurung	[19]
		Lt	Stomach disorders	Magar (Ba)	[23]
100.	*Ficus benghalensis* L. Bar, Moraceae	L	Dysentery and cholera	Magar (G)	[14]
		B	Diabetes		
		Lt	Ulcer		
			Abscess	Magar (Ba)	[23]
		Sd	Fever and cough	Tangbeton	[32]
101.	*Ficus lacor* Buch.-Ham., Kabhro, Moraceae	B	Ulcer and leucorrhoea	Magar (Ba)	[23]
102.	*Ficus religiosa* L., Pipal, Moraceae	B	Cuts and wounds	Magar (G)	[14]
			Cough and asthma	Magar (Ba)	[23]
		R	Typhoid	Lepcha	[34]
			Spleen sweeling	Rai	[31]
103.	*Ficus semicordata* Buch.-Ham. ex Sm. Khanyu, Moraceae	L	Skin diseases	Magar (Pa)	[33]
			Scabies	Magar (P)	[20]
		R	Urinary tract infection	Magar (Ta)	[22]
		Lt	Mumps	Rai	[31]
104.	*Fagopyrum dibotrys* (D.Don.) Hara., Phapar, Polygonaceae	Rh	Stomachache	Newar	[24]
105.	*Galium elegans* Wall. ex Roxb., Lahare Kuro, Rubiaceae	W	Antiseptic	Newar	[24]
106.	*Gaultheria fragrantissima* Wall., Dhasingre, Ericaceae	W	Rheumatism	Newar	[24]
107.	*Girardinia diversifolia* (Link) Friis, Chalne sisno, Urticaceae	R	Constipation	Magar (P)	[20]
			Sprain	Magar (Ro)	[2]
		L	Diabetes	Newar	[24]
108.	*Hedychium spicatum* Sm., Pani sarro, Zingiberaceae	Rh	Cough and cold	Newar	[24]
109.	*Heliotropium indicum* L., Hattisude, Boraginaceae	T	Rabies	Magar (Pa)	[21]
		L	Fever, red eyeness, and conjunctivitis		
110.	*Hydrocotyle javanica* Thunb., Hatti Paila, Apiaceae	L	Earache	Newar	[24]
111.	*Imperata cylindrical* (L.) P. Beauv., Siru, Poaceae	R	Anthelmintic	Newar	[24]
				Raji	[25,35]
				Lepcha	[34]
				Tamang (N)	[27]
		L	Diarrhoea and worms	Magar (Ro)	[2]
112.	*Inula cappa* (Buch.-Ham. ex D. Don) DC, Gaitihare, Asteraceae	R	Epilepsy and rheumatism	Newar	[24]
			Stomachache	Magar (P)	[20]
113.	*Iris decora* Wall., Himalayan Iris, Iridaceae	R	Constipation	Newar	[24]

(*Contd...*)

Table 2: ***(Continued)***

S.N.	Scientific name, Nepali name and Family	P.U.	Diseases treated	Ethnic groups	Sources
114.	*Jatropha curcas* L., Sajjiwan Euphorbiaceae	Lt	Cuts and wounds	Magar (Ta)	[22]
				Magar (Ba)	[23]
				Yakkha	[29]
		W	Syphilis, whitlow, dropsy, anasarca, pneumonia, convulsion, and neuralgia	Yakkha	[29]
		L	Rubefacient, insecticidal, galactogogue, tumors, and scabies		
115.	*Juglans regia* L., Okhar, Juglandaceae	B	Toothache	Magar (Ro)	[2]
			Leprosy and skin diseases	Magar (Ba)	[23]
116.	*Lagenaria siceraria* (Molina) Standl., Lauka, Cucurbitaceae	Sd	Chronic cough	Magar (Ba)	[23]
117.	*Leucas cephalotes* (Roth) Spreng., Dronpuspi, Lamiaceae	L, Fl	Fever and cough	Magar (Pa)	[21]
118.	*Lindera neesiana* (Wall. ex Nees) Kurz, Siltimur, Lauraceae	Sd	Cholera and headache	Magar (P)	[20]
			Abdominal distension, altitude sickness, and gastritis	Rai	[31]
		F	Gastritis, cough, and cold	Thami	[28]
			Cholera, gastritis, and indigestion	Lepcha	[30,34]
			Fever, cough, and control poison	Magar (Ba)	[23]
		W	Fever and stomach disorder	Yakkha	[29]
119.	*Lyonia ovalifolia* (Wall.) Drude, Angeri, Ericaceae	B	Scabies and skin diseases	Newar	[24]
		T	Skin diseases	Gurung	[19]
			Scabies	Magar (P)	[20]
		L	Scabies	Tamang (K)	[26]
				Yakkha	[29]
120.	*Macrotyloma uniflorum* (Lam.) Verdc., Gahat, Fabaceae	Sd	Jaundice and leucorrhoea	Magar (Pa)	[21]
121.	*Mahonia napaulensis* DC., Jamanemandro, Berberidaceae	B	Eye boils	Magar (P)	[20]
122.	*Mallotus philippensis* (Lam.) Muell. Arg., Sindhure, Euphorbiaceae	B	Diarrhea, dysentery, and stomachache	Raji	[25]
				Magar (Pa)	[33]
		Sd	Stomachache and body cooling	Magar (Ta)	[22]
123.	*Mangifera indica* L., Aanp, Anacardiaceae	B	Dysentery and abdominal distension	Raji	[25]
			Rheumatism and stomach ache	Magar (Ta)	[22]
			Dysentery	Rai	[31]
			Gastritis	Magar (Ba)	[23]
124.	*Melia azedarach* L., Bakaino, Meliaceae	B	Anthelmintic	Newar	[24]
				Gurung	[19]
		Sd	Headache, fever, and loose bowel	Tamang (N)	[27]
125.	*Mentha spicata* L., Pudina, Lamiaceae	L	Appetizer	Gurung	[19]
			Throat infection, indigestion, and appetizer	Magar (Pa)	[33]
			Vomiting, gastric disorder, appetizer, and boils	Yakkha	[29]
			Cholera and stomach problems	Lepcha	[30]
			Insomnia	Magar (P)	[20]
		W	Jaundice and heat sickness	Raji	[25]
			Jaundice	Rai	[31]
126.	*Michelia champaca* L., Champ, Magnoliaceae	B	Wounds, scabies, and gastritis	Magar (G)	[14]
		F	Cholera, kidney problem, and fever		
		L	Bone fracture	Magar (Ta)	[22]
127.	*Mimosa pudica* L., Lajjawati, Fabaceae	R	Body cooling	Magar (Ta)	[22]
128.	*Mirabilis jalapa* L., Malatiphool, Nyctaginaceae	R	Stomachache and gastritic	Raji	[25]
129.	*Momordica charantia* L., Tite karela, Cucurbitaceae	F	Fever, blood purifier, and appetizer	Magar (Ba)	[23]
			High blood pressure	Tangbeton	[32]
130.	*Moringa oleifera* Lam., Shitalchini, Moringaceae	L	Chocked voice	Magar (Pa)	[21]
		Sd	blood pressure maintain		
131.	*Murraya koenigii* (L.) Spreng., Mitho Neem, Rutaceae	L	Eye and skin diseases	Raji	[25]
132.	*Musa paradisiaca* L., kera, Musaceae	L	Diarrhoea and dysentery	Tamang (N)	[27]
		S	Snake bite	Lepcha	[34]
		Rh	Internal inflammation	Magar (Ba)	[23]
		Fl	Retained placenta	Raji	[25]
				Rai	[31]
133.	*Mussaenda macrophylla* Wall., Dhobini, Rubiaceae	R	Fever	Magar (Ta)	[22]
			Pneumonia, cough, cold, jaundice, and fever	Lepcha	[30]

(*Contd...*)

Table 2: ***(Continued)***

S.N.	Scientific name, Nepali name and Family	P.U.	Diseases treated	Ethnic groups	Sources
134.	*Myrica esculenta* Buch.-Ham. ex D.Don, Kafal, Myricaceae	B	Fever	Newar	[24]
			Cholera	Raji	[25]
			Diarrhea, dysentery, chronic bronchitis, and rheumatic pain	Magar (Pa)	[33]
			Dysentery	Magar (P)	[20]
			Bleeding from teeth and blood dysentery	Magar (Ta)	[22]
135.	*Nephrolepsis cordifolia* (L.) K. Presl, Pani amala, Nephrolepidaceae	Tu	Indigestion, cold, cough, fever, and appetizer	Magar (Pa)	[21]
			Jaundice and burning urination	Lepcha	[30]
136.	*Nyctanthes arbor-tristis* L. Parijat, Oleaceae	L	Fever	Newar	[24]
			Fever and chronic typhoid	Magar (Ba)	[23]
		Fl	Diabetes and inflammation	Magar (Pa)	[21]
		Sd	Scurvy		
137.	*Ocimum gratissimum* L., Bantulsi, Lamiaceae	L	Gonorrhea	Magar (Pa)	[21]
		W	Rheumatic pain and swelling		
		Sd	Headache		
138.	*Ocimum sanctum* L., Tulasi, Lamiaceae	L	Headache, sinusitis, allergies, cold, migraines, and tonsillitis		
			Cough and tonsillitis	Magar (P)	[20]
			Tonic	Tangbeton	[32]
139.	*Oroxylum indicum* (L.) Benth. ex Kurz, Tatelo, Bignoniaceae	Sd	Tyophoid	Magar (G)	[14]
			Boils	Tamang (K)	[26]
		B	Jaundice	Lepcha	[34]
140.	*Osbeckia stellata* Buch.-Ham. ex K. Gawle, Angeri, Melastomataceae	L	Cuts and wounds	Newar	[24]
141.	*Oxalis corniculata* L., Chariamilo, Oxalidaceae	W	Appetizer	Newar	[24]
			Body cooling	Raji	[25]
			Sinusitis	Magar (P)	[20]
			Fever	Magar (Ta)	[22]
			Tooth corrosion	Rai	[31]
			Sinusitis, anaemia, and piles	Magar (Pa)	[33]
		L	Scurvy and Jaundice	Magar (Pa)	[21]
142.	*Paris Polyphylla* Sm., Satuwa, Melanthiaceae	Rh	Cuts and wounds	Magar (Ro)	[2]
			Intoxication	Magar (P)	[20]
			Gastritis, ulcer, hemorrhage, wound, diarrhea, and menorrhagia	Thami	[28]
			Cuts and control poison	Magar (Ba)	[23]
		T	Illness due to evil spirit	Magar (P)	[20]
143.	*Pedicularis gracilis* Wall. ex Benth., Lousewort, Orobanchaceae	R	Stomachache	Newar	[24]
144.	*Phoenix humilis* Royle. ex Becc., Thakal, Arecaceae	F	Persistant cough	Magar (Pa)	[21]
		Tu	Lung disease		
145.	*Phyllanthus amarus* Schumach. & Thonn., Bhuinamala, Phyllanthaceae	L	Diarrhoea	Magar (Pa)	[21]
		R	Fever		
146.	*Phyla nodiflora* (L.) Greene, Jal pippali, Verbenaceae	L	Gonorrhea	Magar (Pa)	[21]
		W	Cough		
147.	*Phyllanthus emblica* L., Amla, Phyllanthaceae	F	Cold	Newar	[24]
			Cough and cold	Magar (Ta)	[22]
			Gastritis and stomach disorder	Lepcha	[30]
			Gastritis, cough, and appetizer	Magar (Ba)	[23]
148.	*Picrorhiza scrophularriiflora* Pennell, Kutki, Plantaginaceae	R	Harital	Rai	[31]
149.	*Pimpinella diversifolia* DC., Bhoke phul, Apiaceae	F	Cough and cold	Newar	[24]
150.	*Piper longum* L., Pipala, Piperaceae	F	Cough, indigestion, and leprosy	Magar (G)	[14]
			Rheumatic pain	Magar (Pa)	[21]
			Cough	Magar (Ta)	[22]
151.	*Plantago erosa* Wall., Isabgol Jhar, Plantaginaceae	Sd	Constipation	Newar	[24]
152.	*Plumbago zeylanica* L., Chitu, Plumbaginaceae	R	Abscess, indigestion, piles, teeth ache, and diarrhea	Magar (Ba)	[23]
			Muscle pain	Magar (Pa)	[21]
		W	Cough and cold		
153.	*Pogostemon benghalensis* (Burm.f.) Kuntz, Rudilo, Lamiaceae	L	Cold, cough, and fever	Magar (G)	[14]
		W	Headache	Magar (Pa)	[21]
		R	Hematuria		
154.	*Polygonatum verticillatum* (L.) All., Khiraula, Asparagaceae	T	Tonic	Newar	[24]

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Table 2: ***(Continued)***

S.N.	Scientific name, Nepali name and Family	P.U.	Diseases treated	Ethnic groups	Sources
155.	*Potentilla fulgens* Wall. ex Hook., Bajradanti, Rosaceae	R	Toothache	Newar	[24]
				Tamang (K)	[26]
				Magar (P)	[20]
				Tamang (N)	[27]
156.	*Premna barbata* Wall. ex Schauer, Gineri, Lamiaceae	B	Fever	Magar (Pa)	[21]
		L	Headache	Magar (Ta)	[22]
157.	*Prinsepia utilis* Royle, Dhatelo, Rosaceae	F	Body pain, joint pain, and rheumatism	Newar	[24]
		Sd	Joint ache and gout	Magar (Ro)	[2]
158.	*Prunus cerasoides* D.Don, Paiyu, Rosaceae	B	Cut and wounds	Magar (P)	[20]
			Sprains and backaches	Magar (Ro)	[2]
			Body ache and stop abortion	Magar (Ba)	[23]
159.	*Psidium guajava* L., Amba, Myrtaceae	L	Vomiting	Magar (G)	[14]
			Blood pressure	Magar (P)	[20]
			Gastritis and flatulence	Magar (Pa)	[33]
			Headache, wounds, ulcers, bowels, cholera, diarrhoea, indigestion, rheumatism, fever, and cuts	Yakkha	[29]
		B	Cholera, stomach problem, and diarrhea	Lepcha	[30,34]
			Diarrhoea and dysentery	Tamang (N)	[27]
				Magar (Ba)	[23]
				Rai	[31]
		F	Indigestion	Magar (G)	[14]
160.	*Punica granatum* L., Anar, Punicaceae	B	Intestinal disorders	Magar (Ba)	[23]
		F	Jaundice	Tangbeton	[32]
161.	*Rhododendron arboreum* Sm., Laligurans, Ericaceae	B	Cuts	Gurung	[19]
		Fl	Dysentery	Magar (P)	[20]
			Fish bone prick	Lepcha	[30,34]
				Tangbeton	[32]
				Gurung	[19]
162.	*Rhus chinensis* Mill., Bhakiamilo, Anacardiaceae	F	Diarrhoea	Raji	[25]
				Tamang (K)	[26]
				Rai	[31]
163.	*Ricinus communis* L., Arandi, Euphorbiaceae	L	Body pain and antidote to snake bite	Newar	[24]
		Sd	Rheumatism and earache	Lepcha	[30]
164.	*Roscoea purpurea* Sm., Rashgaree, Zingiberaceae	Rh	Aphrodisiac	Newar	[24]
165.	*Rubia manjith* Roxb., Majitho, Rubiaceae	R	Antiseptic and rheumatism	Newar	[24]
		W	Scabies	Magar (P)	[20]
		L	Cuts and wounds	Magar (Ro)	[2]
			Piles	Rai	[31]
166.	*Rubus ellipticus* Sm., Ainselu, Rosaceae	R	Anthelmintic	Newar	[24]
			Abdominal pain	Gurung	[19]
			Wounds	Magar (Pa)	[21]
			Urinary tract infection	Magar (Ta)	[22]
			Diarrhoea, sore throat, cholera, and gastritis	Lepcha	[30]
			Fever	Magar (Ba)	[23]
		B	Mouth wounds and tonsillitis	Raji	[25]
		F	Appetizer	Magar (Ba)	[23]
		Bd	Cough and cold	Gurung	[19]
			Fever	Magar (P)	[20]
			Tongue eczema	Lepcha	[34]
			Snake bite	Magar (Ba)	[23]
167.	*Saccharum officinarum* L., Ukhu, Poaceae	S	Jaundice	Raji	[25]
				Lepcha	[34]
			Diarrhoea	Tangbeton	[32]
168.	*Saccharum spontaneoum* L., Kans, Poaceae	R	Stomachache	Magar (Ta)	[22]
169.	*Sarcococca coriacea* (Hook.) Sweet, Bhakhre Ghans, Buxaceae	L	Scabies and skin diseases	Newar	[24]
170.	*Satyrium nepalense* (Gaamdol), D.Don, Orchidaceae	R	Stomachache	Magar (Ro)	[2]
			Fever	Newar	[24]
171.	*Saussurea graminifolia* Wall. ex DC., Saw-wort, Asteraceae	W	Kidney fever, sores, and bile disorder	Tangbeton	[32]
172.	*Schefflera venulosa* (Wight & Arn.) Hams, Kursiulo, Araliaceae	B	Paralysis	Rai	[31]

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Table 2: ***(Continued)***

S.N.	Scientific name, Nepali name and Family	P.U.	Diseases treated	Ethnic groups	Sources
173.	*Schima wallichii* (DC.) Korth., Chilaune, Theaceae	B	Anstiseptic	Newar	[24]
			Fever	Tamang (N)	[27]
			Piles	Rai	[31]
			Fever and stomach pain	Magar (Pa)	[33]
			Gastritis and healing cracks	Lepcha	[30]
		F	Scorpion bite	Magar (G)	[14]
			Spider bite	Yakkha	[29]
174.	*Scindapsus officinalis* Schott, Kanchiro, Araceae	R	Cough, bronchitis, and bone fracture	Magar (Pa)	[21]
		F	Cuts and wounds		
175.	*Scoparia dulcis* L., Mitha jhar, Scrophulariaceae	W	Cuts, wounds, and toothache	Magar (Pa)	[21]
176.	*Scutellaria discolor* Colebr., Ratopate, Lamiaceae	R	Fever	Newar	[24]
177.	*Selinum tenuifolium* Wall. ex C.B. Clarke, Bhutkeshi, Apiaceae	W	Cough and cold	Newar	[24]
178.	*Semecarpus anacardium* L. f., Bhalayo, Anacardiaceae	F	Dysentery, asthma, and acute rheumatism	Magar (G)	[14]
			Wounds	Raji	[25]
179.	*Sesamum orientale* L., Til, Pedaliaceae	Sd	Fever	Tangbeton	[32]
180.	*Shorea robusta* Roth, Sal, Dipterocarpaceae	S	Blood dysentery	Magar (Ta)	[22]
181.	*Sida cordifolia* L., balu, Malvaceae	W	Rheumatic pain	Magar (Pa)	[21]
		R	Jaundice		
182.	*Smilax ovalifolia* Roxb. ex D.Don, Kukurdaino, Smilacaceae	L	Scabies, skin diseases, and meternity problems	Newar	[24]
183.	*Solanum aculeatissimum* Jacq., Kantakari, Solanceae	F	Jaundice	Newar	[24]
184.	*Solanum anguivi* Lam., Bihi, Solanaceae	F	Headache	Magar (G)	[14]
			Diabetic, high blood pressure, and headache	Yakkha	[29]
			Toothache, piles, and scabies	Magar (Ba)	[23]
185.	*Solanum indicum* L., Kande bihi, Solanaceae	Sd	Toothache	Lepcha	[34]
186.	*Solanum nigrum* L. Jungali bihi, Solanaceae	F	Diabetes	Newar	[24]
			Headache	Tamang (K)	[26]
		L	Insomnia and indigestion	Raji	[25]
187.	*Solidago virgaaurea* L., Goldenrod, Asteraceae	W	Diarrhea	Newar	[24]
188.	*Sonchus arvensis* L., Dudhi, Asteraceae	W	Diabetes	Newar	[24]
189.	*Spilanthes calva* DC., Marethi, Asteraceae	W	Toothache	Newar	[24]
190.	*Spiranthes sinensis* (Pers.) Ames, Screw Flower, Orchidaceae	Rh	Aphrodisiac	Newar	[24]
191.	*Spondias pinnata* L. f. Kurz, Amaro, Anacardiaceae	B	Rheumatism	Magar (Ta)	[22]
			Joint pain	Magar (Ba)	[23]
		F	Cough and rheumatism		
		Sd	Fever	Tamang (N)	[27]
192.	*Swertia angustifolia* Buch.-Ham. ex D.Don, Goru tite, Gentianaceae	W	Anthelmintic, diarrhoea, fever, headache, and stomachache	Newar	[24]
		R	Antipyretic	Tamang (K)	[26]
193.	*Swertia chirayita* (Roxb. *ex* Fleming) H. Karst, Chiraito, Gentianaceae	W	Fever, malaria, cough, cold, diarrhoea, pneumonia, and diabetes	Lepcha	[30]
			Fever, typhoid, diabetes, cuts, and wounds	Magar (Ba)	[23]
			Fever, pneumonia, and jaundice	Tangbeton	[32]
		L, S	Fever	Lepcha	[34]
194.	*Syzygium cumini* (L.) Skeels, Jamun, Myrtaceae	B	Cough, headache, and sinusitis	Magar (Ta)	[22]
			Dysentery	Rai	[31]
195.	*Tagetes erecta* L., Sayapatri, Asteraceae	L	Fever	Lepcha	[34]
196.	*Tamarindus indica* L., Imali, Fabaceae	L	Inflammation, boils, and chicken pox	Magar (Pa)	[21]
197.	*Terminalia belerica* (Gaertn.) Roxb., Barro, Combretaceae	F	Cough	Magar (Ta)	[22]
			Measles, gastritis, tonsillitis, and stomach problems	Lepcha	[30]
			Cough and throat pain	Tangbeton	[32]
			Cough and bronchitis	Tamang (N)	[27]
198.	*Terminalia chebula* (Gaertn.) Retz., Harro, Combretaceae	F	Cough	Magar (Ta)	[22]
			Sore throat, fever, and cough	Lepcha	[30]
			Cough and bronchitis	Tamang (N)	[27]
			Cough, fever, and eye disease	Magar (Ba)	[23]
			Gastritis and blood purifier	Tangbeton	[32]

(*Contd...*)

Table 2: ***(Continued)***

S.N.	Scientific name, Nepali name and Family	P.U.	Diseases treated	Ethnic groups	Sources
199.	*Thalictrum virgatum* Hook. fil. & Thomson, Daampaate, Ranunculaceae	R	Toothache	Newar	[24]
200.	*Thespesia lampas* (Cav.) Dalzell & A. Gibson, Ban kapas, Malvaceae	S,R	Joint and backbone pain	Magar (G)	[14]
		R	Jaundice	Tamang (N)	[27]
		W	Cut, wounds, sprain, and bone	Magar (Ta)	[22]
201.	*Thysanolaena maxima* (Roxb.) Kuntze, Amriso, Poaceae	R	Antihelmintic	Newar	[24]
				Magar (Pa)	[33]
			Chocking needle on foot and boils	Lepcha	[30]
			Labour pain	Rai	[31]
				Raji	[25]
		B	Snake bite	Raji	[25]
202.	*Tinospora cordifolia* (Thunb.) Miers, Gurjo, Menispermaceae	Rh	Diabetes and stomach problem	Raji	[35]
				Newar	[24]
			Stomachache	Tamang (K)	[26]
			Sprain and body cooling	Magar (Ta)	[22]
			Diabetes and body pain	Magar (Ba)	[23]
		T	Menstruation problem	Tamang (N)	[27]
203.	*Trichosanthes lepiniana* (Naudin) Cogn., Chichindo, Cucurbitaceae	Sd	Sore throat	Newar	[24]
204.	*Tridax procumbens* L., Kurkure, Asteraceae	W	Cuts and wounds	Magar (Pa)	[33]
205.	*Trigonella foenum- graceum* L., Methi, Fabaceae	Sd	Cold and cough	Raji	[25]
			Heat sickness	Magar (Pa)	[33]
			Cough	Lepcha	[34]
		L	Boils	Magar (Pa)	[33]
206.	*Urtica dioica* L., Sisnoo, Urticaceae	R	Labour pain and retain placenta	Raji	[25]
			Fever, mental and stomach disorder	Gurung	[19]
			Toothache	Magar (Pa)	[33]
		L	High blood pressure	Raji	[25]
			Dog bite	Magar (Pa)	[21]
				Lepcha	[34]
			Diabetes and rheumatism	Magar (P)	[20]
		Bd	Diabetes	Newar	[24]
			Diabetes and rheumatism	Magar (Pa)	[33]
		W	Cuts, wounds, and fracture	Lepcha	[30]
207.	*Viola serpens* Wall., Ghatte Ghas, Violaceae	W	Cold and cough	Newar	[24]
208.	*Viscum album* L., Hadchur, Santalaceae	W	Cuts, wounds, and fracture	Lepcha	[30]
			Fracture and body pain	Thami	[28]
			Fracture	Rai	[31]
		L	Fracture	Magar (Ta)	[22]
209.	*Vitex negundo* L., Simali, Verbenaceae	L	Cold and cough	Newar	[24]
			Swollen body parts	Rai	[31]
		T	Sinuses	Magar (Ba)	[23]
210.	*Woodfordia fruticosa* (L.) Kurtz, Dhiero, Lythraceae	Fl	Cholera	Raji	[25]
			Jaundice and dysentery	Magar (Pa)	[33]
			Dysentery	Magar (P)	[20]
				Tamang (N)	[27]
				Magar (Ba)	[23]
			Stomachache	Magar (Ta)	[22]
			Cholera	Rai	[31]
211.	*Xeromphis spinosa* (Thunb.) Keay, Main kanda, Rubiaceae	R	Headache	Magar (G)	[14]
212.	*Youngia japonica* (L.) DC., Dulla jhar, Asteraceae	L	Indigestion	Magar (G)	[14]
213.	*Zanthoxylum armatum* DC., Timur, Rutaceae	Sd	Cold and gastritis	Magar (Pa)	[33]
			Gastritis	Magar (P)	[20]
			Cold, stomach disoreder, and poison	Magar (Ro)	[2]
		F	Headache, abdominal pain, appetite, and indigestion	Gurung	[19]
			Cold and cough	Magar (Pa)	[21]
				Tangbeton	[32]
			Joint pain	Lepcha	[34]
			Fever, cough, asthma, digestion, headache, and toothache	Magar (Ba)	[23]

(*Contd...*)

Table 2: ***(Continued)***

S.N.	Scientific name, Nepali name and Family	P.U.	Diseases treated	Ethnic groups	Sources
214.	*Zingiber officinale* Roscoe, Aduwa, Zingiberaceae	Rh	Throat pain, cough, and high altitude sickness	Raji	[25]
			Cough, vomiting, and infection of caterpillar hairs	Lepcha	[30,34]
			Kidney problem, throat pain, gastritis, diabetes, and cough	Tangbeton	[32]
		W	Cholera	Rai	[31]
215.	*Ziziphus mauritiana* Lam. Bayer, Rhamnaceae	F	Stomach problem and body cooling	Magar (G)	[14]

P.U.=Parts Used, S=Stem, B=Bark, F=Fruit, L=Leaf, R=Root, Fl=Flower, T=Twig, Rh=Rhizome, Tu=Tuber, W=Whole plant, Bu= Bulb, Sd=Seed, Lt=Latex, Bd=Buds

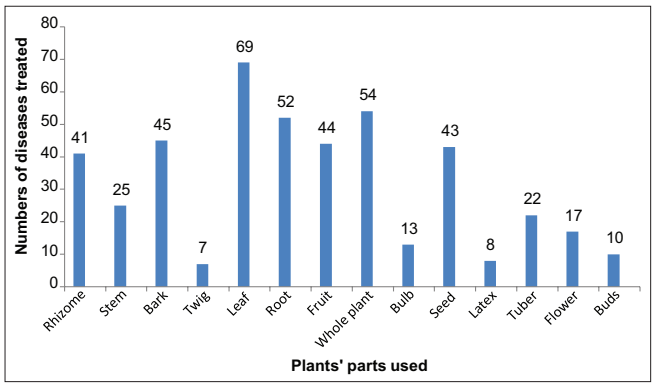

Figure 1: Plants' parts used and numbers of diseases treated

analysis, the leaf is used for the treatment of maximum numbers of diseases (69 diseases) and twig being used for minimum numbers of diseases (7 diseases).

CONCLUSIONS

Medicinal plants are major sources of crude drugs for healing diseases by various ethnic groups living near the forests of Nepal. A total of 215 Plant species from 93 families is used for the treatment of 139 types of diseases or ailments by 10 ethnic groups residing in 13 hilly districts of Nepal. The whole plant or its parts were used for medicinal purposes and leaf is found to be used for the treatment of maximum numbers of diseases.

Ethnomedicinal knowledge is the foundation for the invention of new medicines. Proper documentation of traditional knowledge on medicinal plants with their identification and cultivation should be done which helps to preserve traditional knowledge as well as medicinal plants. Highly valuable medicinal plants are needed to be grown commercially to reduce pressure on these species in wild habitats. Young generations should be encouraged and trained in traditional medicinal knowledge. Phytochemical and pharmacological researches are needed to be carried out for scientific validation of the medicinal properties of the plant species used by indigenous people.

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